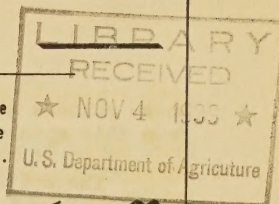


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# news letter

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No. 4

## PROCESSING OF FARM PRODUCTS RESEARCH

### Cotton Ginning Investigations.

On temporary appointments, Cotton Ginning Specialists Julius F. Byrd and Chas. Elbert were assigned respectively to cotton gin inspection and trouble eliminations in the Altus, Okla. and Newton, Miss. areas. Each of these localities has about 30 or more cotton gins co-operating in the export program which was fostered by the A.A.A., B.P.I. and other agencies of the Department. Mr. Byrd reported conditions of extreme dryness in the Altus cottons and much difficulty in handling them because of their peculiar characteristics. No such difficulties were encountered, however, in the Mississippi region until the late season pickings began to arrive at which time the quality of the cotton dropped so much that the majority of the bales ceased to be suitable for the export program.

In cooperation with the engineers of the Continental Gin Co. the Cotton Ginning staff of the Laboratories made special tests on two new ginning and drying installations on Sept. 19 and 20, one being at Anguilla, Miss., and the other near Covington, Tenn.

On Sept. 23 Dr. Brown and Mr. Haden of the Agronomy Section of the University of Louisiana conferred with Laboratory officials regarding roller ginning problems arising in connection with small tracts of Sea Island cotton which have been planted in the Louisiana and Mississippi Delta regions.

On Sept. 26 roller ginning tests began at the Laboratory with Sea Island cotton from the Coastal Plains Experiment Station, Tifton, Ga. Two distinct types of roller gins were used on this work, including the rollers covered with Walrus hide and special American composition rubber packing respectively. With the attachments developed at the Cotton Ginning Laboratories both rollers gave pleasing results and demonstrated that an embargo on Walrus hide may not necessarily result in lower quality Sea Island cotton.

Beginning of cotton ginning with the Hackbarth-Garner special regin began at the Laboratories under the direction of Mr. Harlan W. Hackbarth, who made a special trip from Waco, Tex., for the purpose. Some mechanically harvested cotton samples, heavily permeated with leaf and foreign matter, were reginned with gratifying results. Concurrently, preliminary trials were begun with a double process gin which is being developed at the Laboratories along the lines of the Withers design,

whose patents have expired, and some promising results were indicated from this special unit.

The cotton harvesting and ginning season in the Mississippi River regions is rapidly drawing to a close because of the short season and remarkable weather conditions which have prevailed throughout the fall.

The following have visited the Laboratories during the past month: A. W. Scarratt, of the International Harvester Co., Merrill E. Pratt, President of the Continental Gin Co.; Paul J. Algier, Chief of the Experiment Stations of the Argentine National Cotton Board, and with him Rafael Garcia-Mata, Agricultural Economist, Robert Mallo, Agricultural Engineer and Dr. Carlos Mayone, Agricultural Economist; B. C. Woodford, Chief Engineer of the Murray Company, Dallas, Texas; John A. Riechman and Richard Alcott, President and Vice-President of the Riechman-Crosby Co., Memphis, Tenn.

#### Cotton Packaging Investigations:

Two crews of cotton compress observers have begun studies at local compresses in tabulating bale cuts received during standard and high density compresses from local ginnings. Upon the tabulation of these observations the engineers of the project expect to make a careful survey of the pressing equipment and conditions which contribute to the bale cuts.

A significant number of specimen bales have been pressed out on the pilot press of the Laboratory with various coverings such as Burlap, jute, and cotton bagging. Some of these miniature bales, varying in density from 11 to 44 pounds per cubic foot, may be seen in the office of S. H. McCrory, Assistant Chief of the Bureau. Similar bales are regularly prepared at the Laboratories for spinning tests and storage under peculiar conditions.

The Bureau's big truck and trailer for cotton hauling is becoming a familiar sight on the main highways of the Cotton Belt. The trailer has a capacity of 8 bales of seed cotton and has an orange colored sign on a black background in accordance with the recommendations of the Department of Agriculture for maximum visibility. The shields of the Bureau adorn the doors of the cab.

The necessity for more operating room in the cotton packaging spaces has placed some pieces of ginning equipment on surplus, including some cleaners, feeders and distributors. These items are not serviceable in their present condition because of lack of bearings but are immediately available to any other project in the Bureau for transfer through Mr. Stevens' section.

F. K. Carter, Oil Mill Manager of the Queensland (Australia) Cotton Board, visited the cotton packaging project on Oct. 10, 11, and 12. Mr. Carter presented a letter of introduction from W.G. Wells, Sr. Research Officer of Queensland's Department of Agriculture and Stock.



The Physics Laboratory, under the leadership of Waldo H. Kliever, has been providing the packaging project with some especially fine instruments made up in sheet metal cabinets at the shop and finished in black crystal enamel. The oscillograph is now being tested by Mr. Kliever before final acceptance. It records seven distinct phenomena simultaneously on photographic paper and gives promise of being one of the most useful instruments the Laboratory has had.

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#### INDUSTRIAL-FARM PRODUCTS RESEARCH

Dr. A. J. Stirton attended the meeting of the American Oil Chemists' Society at Chicago, October 4 to 6.

P. H. Groggins delivered a series of lectures before sections of the American Chemical Society in New York on October 19 to 21, inclusive. At Schenectady, the subject of his discourse was "Recent Progress in Organic Synthesis." During his stay here he also addressed the assembly at Union College. At Ithaca and at Hamilton he discussed "Amination by Ammonolysis."

C. Wu, of the Universal Trading Corporation, New York City, spent a number of days in the Weed Eradication Section, Arlington Farm, to familiarize himself with our process for the electrochemical production of sodium chlorate.

Carl C. Haferkamp, mechanical engineer with the Diamond Match Co. at Oswego, N.Y., visited the sodium chlorate pilot plant at Arlington Farm, to discuss and observe the process for the production of sodium chlorate.

#### Agricultural By-Products Laboratory, Ames, Iowa.

J. D. Ratcliff of the Colliers' Weekly spent September 19, 20 and 21 in our laboratory to obtain factual data for an article to be published in Colliers magazine.

On September 25 Dr. E. C. Lathrop of the Northern Regional Research Laboratory, accompanied by Dr. W. B. Van Arsdel of the Bureau offices in Washington, arrived at this Laboratory to confer with our staff regarding the work carried on. Dr. Van Arsdel returned to Washington on September 26. Dr. Lathrop remained at the Laboratory through September 29, investigating various phases of our work and conferring with Iowa State College officials. On September 27 Dr. Lathrop and Dr. Aronovsky drove to Tama where they visited the Central Fibre Products Co., and discussed the utilization of agricultural fibrous wastes, particularly straw, with H. T. Cherry, President, and Mr. Bogle, Superintendent. On September 28, they visited the Maizewood Insulation Co. mill at Dubuque and discussed the utilization of cornstalks and straw with Mr. Hauptli, president of this company. They also visited the Farley and Loetscher Mfg. Co., makers of woodwork and "Farlite".

On October 3 Dr. Aronovsky accompanied by Dr. R. P. Straka called at the Central Fibre Products Co., in Tama, with reference to further work on slime-control.

Richard Sevick of Central Fibre Products Co. called on Drs. Aronovsky and Straka on October 9 and 11 regarding the slime-control work.

Drs. C. N. McBryde, in charge of the Ames Field Station, Bureau of Animal Industry; W. A. Craft, Director of the Regional Swine Breeding Laboratory, Ames; H. C. Murphy, Associate Pathologist, Barberry Eradication, Bureau of Plant Industry, and F. H. Mendell, State Coordinator, Soil Conservation Office, Ames, met with Dr. Aronovsky on October 6 to discuss the organization of a U.S.D.A. club. Tentative plans were made for an early meeting.

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#### FARM STRUCTURES RESEARCH

Mr. Thompson has completed a report on moisture equilibrium studies of various grains based on studies begun in February. It was found in general that at low temperatures the moisture content corresponding to a given humidity is higher than at higher temperatures. The studies were made at Arlington Farm in temperatures varying from 20° to 70° F.

A. H. Senner has received from Prof. H. B. Walker of California, additional vaporizing oil burning orchard heaters for testing at Baltimore. A number of modifications of this type of burner have been developed and tested in addition to the two general types of atomizing burners.

Two canvas-covered sheds built at the Beltsville Research Center in 1934 were recently reroofed with canvas using several experimental paint treatments. The original roof coverings were all in poor condition but wall coverings applied at the same time were mostly in good condition.

Two of the cooperators in whose houses studies were conducted during the past three years are planning to remodel their houses with the assistance of Max J. LaRock, Extension Agricultural Engineer of the University of Wisconsin who is representing the Bureau on the Farmhouse Research Project at Madison, Wis. Mr. LaRock also reports that a new cooperator is being assisted with remodeling problems and that tests will be started there shortly.

Dr. Barre of the Ames (Iowa) Station has examined a number of bins bought by the Commodity Credit Corporation, after they have been filled with shelled corn. Some of the bins have shown weakness at the door frames and it is necessary to reinforce these with horizontal rods across the doorways.



M. G. Cropsey reports that the potato harvest in the North Dakota area has been delayed by rain. Five storages are equipped for tests and have been partly filled. Tests of potatoes stored in creosoted boxes in cooperation with other departments at the station showed that the potatoes stored in treated boxes were of poorer cooking quality than others and yield tests showed that they were poorer seed stock as well.

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#### CHEMICAL ENGINEERING RESEARCH

Dr. David J. Price spent the week of September 17 to 24 in San Francisco and Los Angeles. In San Francisco he attended the annual meeting of the International Association of Fire Chiefs and the Pacific Coast Fire Chiefs, where he discussed the results of the investigation of the Rosenbaum grain elevator explosion in Chicago last May, and the fire chiefs were very much interested in the conclusions of the Bureau. Special attention was given to the possibility of developing methods for dust collection and control during grain-handling operations.

Dr. Price conferred with the resident construction engineer who is supervising the work on the Western Regional Research Laboratory at Albany, Calif. relative to construction matters, and with members of the laboratory staff. He found that satisfactory progress is being made on this project. Definite plans are being completed for the cornerstone laying on October 27.

Mayor Maury Maverick of San Antonio, Texas, requested the Department to present the dust-explosion and fire-prevention work of the Bureau before a large group in that city. It was impossible to comply with the Mayor's request at this time, but through Chief Hart of the San Antonio fire department, who was attending the Fire Chiefs' meeting in San Francisco, Dr. Price arranged to discuss this subject in San Antonio some time when he is in that part of the country.

In Los Angeles on September 23, conferences were held with representatives of the Los Angeles fire department relative to methods of firemen's training in California. Plans were considered for the preparation of a manuscript on chemistry of explosions and fires for use in firemen's training schools.

Hylton R. Brown spent October 1 to 3 in Minneapolis where he attended meetings of the National Grain Trade Association and allied groups. He discussed the preparation of a safety code for the country elevators with a round-table group of secretaries of country elevator associations. While in Minneapolis Mr. Brown conferred with officials of terminal weighmasters' association and elevator operators, also with the chief of the fire department and with insurance officials.

In Chicago on October 4 and 5 Mr. Brown conferred with officials of the Rosenbaum Brothers Grain Elevator Co., the Quaker Oats Co., Corn Products Refining Co., and the Society of Grain Elevator Superin-

tendents. Mr. Brown conferred with Eugene Arms of the Mutual Fire Prevention Bureau concerning the hazard of using carbon disulphide as a fumigant in grain storage plants. Recent explosions during fumigation operations with this material have called attention to its serious fire and explosion hazard. An effort will be made to call to the attention of all users the necessity of adopting precautions in handling this material. Further discussion was had on the use of safe fumigants and of giving greater publicity to the hazard of using carbon disulphide.

On September 22 the Division gave a series of dust explosion demonstrations before a group of about 200 visitors to Arlington Farm who were interested in various phases of the Department's work.

Byron J. Culp attended the annual meetings, on October 3, of the Federal Interdepartmental Safety Council in the Departmental Auditorium.

On October 11 Mr. Culp represented Dr. Price at the meeting of the Washington Safety Society in the Labor Department.

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#### MECHANICAL FARM EQUIPMENT RESEARCH

On September 22 G. A. Cumings attended a meeting of the advisory board of the National Joint Committee on Fertilizer Application, for the purpose of formulating plans and outlining a program for the annual meeting to be held in New Orleans on November 21.

W. H. Redit supervised the application of fertilizer in a fertilizer placement experiment with strawberries at Norfolk, Va. on September 29.

The Bureau of the Census, Department of Commerce, has made arrangements for an inspection by 200 supervisors of the 1940 agricultural census of selected subjects at the Arlington Experiment Farm to be made on October 19. G.A. Cumings will describe the various classes of machinery on farms, a considerable number of which have been assembled for exhibition.

In connection with the forthcoming meeting of the American Farm Bureau Federation in Chicago early in December, an exhibit of the accomplishments on the Fertilizer Distributing Machinery Project will be presented in the general section "Plenty Without Waste - Efficient production." Material has been assembled by G. A. Cumings to serve as a basis for preparing this exhibit.

During the month assistance was given to the Forage Crops Division of the Bureau of Plant Industry by W. R. Humphries in the preparation for shipment of grass nursery stocks at Arlington Farm, Va. Because of Japanese Beetle quarantine it is necessary that all sod pieces be shredded before shipment, to the end that the root-soil or



other material for size or capacity sufficient to harbor Japanese Beetle eggs be eliminated, necessitating considerable hand labor. It was found in putting partially dried sod pieces through a thresher containing two rows of overhead concaves that all dirt could be knocked from the roots and the sod pieces adequately shredded. A simple hand screening after the threshing action eliminated the pulverized soil. By running the threshing cylinder at the rate of 750 revolutions per minute (equivalent to a peripheral travel of 2,650 feet) satisfactory results were obtained for the particular variety of grass handled. More aggressive threshing action, if found necessary, may readily be provided by either introducing more concaves or increasing cylinder speed, or both.

R. M. Merrill of the Tillage Machinery Laboratory spent several days in September at Cincinnati, Toledo, and Cleveland, Ohio, and Detroit, Mich., on matters pertaining to the work of the Tillage Laboratory and in conferring with Frank Irons and O. K. Hedden relative to publication of material on pest control activities.

I. F. Reed observed and obtained motion pictures of a cotton picking machine being developed by the S. L. Allen Co., Philadelphia, Pa.

S. W. McBirney and J. B. Powers of the University of California are spending October in Colorado and Idaho making tests with the Scott Viner sugar-beet harvester and the variable cut sugar-beet topper. They will work in Colorado with E. M. Mervine who will return with them to Idaho for the trials there.

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#### CARBOHYDRATE RESEARCH

H. S. Paine, Chief, Carbohydrate Research Division, returned the middle of September from a 2 1/2 months' trip in Europe during which he visited Sweden, Norway, Denmark, Finland, Lithuania, Latvia, Estonia and Russia, about two weeks of the trip being spent officially in making observations and obtaining information regarding agricultural conditions and utilization of agricultural commodities in these countries.

Outstanding features of the trip were visits to the Moscow Agricultural Exposition, a 1,000 mile excursion down the Volga from Gorky to Stalingrad, and travel via the North Cape and Arctic Ocean into Finland and thence southward by the "Great Arctic Highway", the only automobile road in the world connecting the polar circle with the Arctic coast. The many and varied exhibits at the Moscow Agricultural Exposition, together with the large visiting delegations from all the republics of the U.S.S.R. afforded an excellent cross-sectional impression of European and Asiatic Russia.

The Laurel (Mississippi) sweetpotato starch factory started seasonal operation the latter part of September. An abundant acreage has been provided by the farmers in that area and it is anticipated that 250,000 to 275,000 bushels of sweetpotatoes will be processed for starch.

All starch produced last season has been sold and orders for starch of this season's production are being received at a very satisfactory rate. Research on the new method of dehydrating sweetpotatoes so as to permit year-round factory operation, and on revision of agricultural practices in growing sweetpotatoes is being actively continued at Laurel.

R. M. Kingsbury left Washington September 4 to assist in work on sweetpotato starch at the Laurel plant.

H. S. Paine, Chief, visited field stations at Auburn, Ala.; Laurel, Miss.; Bogalusa, La.; Houma, La.; and Baton Rouge, La., during October.

C. F. Walton, Jr., spent two weeks recently at the Georgia Mountain Experiment Station, at Blairsville, in connection with cooperative research on the production of sorgo sirup.

Emil K. Ventre and S. Byall recently returned to Washington from the Meridian, Miss., field station where they erected a sugar factory on a pilot-plant scale and studied the production of sugar from sorgo.

C. A. Fort left recently for the Houma, La. field station to continue investigations on sugar cane in cooperation with other Bureaus of the Department. Some new equipment is being installed in a laboratory in the new Federal building, which is being occupied for the first season.

Emil K. Ventre and S. Byall have gone to Blissfield, Mich., where they will conduct experimental work in cooperation with the beet sugar industry on improved methods of manufacture.

Dr. R. S. McKinney has been officially transferred to field status and is now in charge of the Gainesville, Fla. station recently established for research on tung oil. A. F. Freeman is temporarily in charge of the tung oil station at Bogalusa, La.

#### Outside Publications:

Changes in the Composition of Cane Juice Produced by Clarification,  
C. A. Fort, Facts About Sugar, Vol. 34, No. 9, pp. 34-39 & 41,  
September, 1939.

Extraction of Hemicelluloses from Plant Material. II, by  
E. Yanovsky, Industrial & Engineering Chemistry. Vol. 31,  
No. 10, pp. 1245-6, October, 1939.

Ben (Moringa) Seed Oil, by George S. Jamieson, Oil & Soap. Vol. 16,  
pp. 173-4, September, 1939.



#### NAVAL STORES RESEARCH

W. D. Pohle attended the fall meeting of the American Oil Chemists' Society held in Chicago, Ill., on October 4, 5, and 6, and presented a paper on "A Story of the Factors Influencing the Color Rosin Contributes to Soap."

C. F. Speh visited the Naval Stores Station, Olustee, Fla. during the first week of October. While in the South Mr. Speh also visited the University of Florida and the Georgia School of Technology, as well as a number of naval stores producers and factors.

#### Publications:

- A Gauge for Measurement of Gas Pressures. U. S. Pat. 2,169,812.  
Issued August 15, 1939 to S. Palkin and T. C. Chadwick.
- A Device to Prevent Bumping and Promote Boiling. (S. Palkin and T. C. Chadwick) Ind. and Eng. Chem., Anal. Ed., 11, 9,  
Sept. 15, 1939. p. 509.

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#### FERTILIZER RESEARCH

During a recent visit to his home, Dr. A. K. Brewer of this laboratory visited the laboratories of the University of Minnesota, Minneapolis, Minn., the University of Wisconsin, Madison, Wis., and the Purdue University at LaFayette, Ind., where he consulted with those using the methods of separating isotopes developed in this laboratory.

At the meeting of the Chemical Society of Washington, the local section of the American Chemical Society, held at the George Washington University on Thursday, October 12, the following papers prepared by members of the Division were presented:

- Chemisorptions of Gases on Iron Synthetic Ammonia Catalysts,  
by S. Brunauer and P. H. Emmett.
- The Catalytic Function of Molybdenum in Nitrogen Fixation by  
Azotobacter, by C. K. Horner and D. Burk.
- A Thermal Method for the Separation of Isotopes, was presented  
by A. K. Brewer.

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#### REGIONAL RESEARCH LABORATORIES

Dr. Lee T. Smith, chemist in the research laboratories of the Bureau of Dairy Industry, has been appointed to head the Carbohydrate and Derived Products Division of the Eastern laboratory. The investigations under Dr. Smith's direction will be concerned chiefly with the development of new and expanded uses of milk sugar and potato starch, and the numerous important products which can be prepared from these materials by fermentation and other means.

A native of Indiana, Dr. Smith received his A.B. degree at Indiana University in 1918 and later obtained the A.M. and Ph.D. degrees there. He came to the United States Department of Agriculture a little more than a year ago after nearly 20 years of experience with large industrial concerns for whom he carried on research and development work in the manufacture and utilization of plastic materials. While with the Bureau of Dairy Industry, Dr. Smith and a co-worker perfected a rubber-like substance closely related to the so-called organic glass used for highway reflectors.

Dr. Morris J. Blish, formerly head of the Department of Agricultural Chemistry at the University of Nebraska and Professor and Chairman of the Department of Chemistry of the Nebraska Agricultural Experiment Station, has been appointed Chief of the Protein Division at the Western laboratory. He will direct research looking toward the development of new industrial uses for the proteins of wheat, alfalfa, seeds and kernels, and of other commodities to be investigated in the Western laboratory.

Dr. Blish is a graduate of the University of Nebraska and holds a Ph. D. degree from the University of Minnesota. For several years he was a member of the research staff at the Agricultural Experiment Station at Bozeman, Montana. He enlisted in the World War while in Montana and returned there in 1919. Since 1922 he has been head of the Department of Agricultural Chemistry at the University of Nebraska. His contributions to the field of cereal chemistry have been of fundamental importance to the cereal industries. As a result of these many contributions and for outstanding work, on June 2, 1936, he was presented the Thomas Burr Osborne Medal by the American Association of Cereal Chemists. He has also been intimately connected with the Journal of Cereal Chemistry since its inception and is now Editor-in-Chief of that publication.

Dr. Richard W. Jackson, previously Associate Professor of Biochemistry at Cornell University Medical College, has been appointed Chief of the Protein Division, Eastern Regional Research Laboratory. He will be in charge of research on the isolation and properties of proteins available from agricultural products and will direct investigations to discover new and improved methods for the utilization of proteins in the production of plastics, fiber materials, and other products of commercial value.

Dr. Jackson is a graduate of Eureka College and received his Ph. D. degree in chemistry from the University of Illinois in 1925. He has since then been engaged in teaching and research at the University of Louisiana, Yale University, and Cornell University. At Yale University, before being appointed to the staff, he was holder of various research fellowships including one granted by the National Research Council. He made the fundamental discovery that methionine and cystine are related metabolically and has published a considerable number of contributions dealing with the organic chemistry and biochemistry of the amino acid units derived from proteins.



Dr. M. J. Copley, formerly Associate Professor of Chemistry at the University of Illinois, has been appointed Chief of the Analytical and Physical Chemistry Division, Eastern laboratory. Dr. Copley will direct research on the application of physical and physico-chemical methods to aid in the development of new uses for surplus agricultural commodities, and also have general supervision of the analytical work carried on by the laboratory.

Dr. Copley received his Ph.D. degree in physical chemistry from the University of Illinois in 1929 and was appointed immediately to the teaching and research staff of the Chemistry Department. He has published the results of numerous investigations on the influence of hydrogen bonding on the solubility of organic compounds, which has facilitated the search for ideal dry cleaning fluids, the surface ionization of the alkali metals and their salts, the measurement of the magnetic moments of atoms, and the design of high vacuum pumps. In addition to his university work during the past three years he has served as a consultant chemist in the development of absorption refrigeration machines for use in air conditioning.

Dr. Klare S. Markley has been appointed Chief of the Oil, Fat and Protein Division of the Southern laboratory. He will be responsible for the scientific and administrative work of the Division, which involves fundamental chemical and physical studies on the composition and properties of oils and proteins derived from cottonseed and peanuts, in addition to work on various aspects of processing practices and industrial utilization of these important agricultural raw materials.

Dr. Markley holds a B.S. degree in Chemical Engineering and an M.S. degree from George Washington University in addition to a Ph. D. degree in organic chemistry from Johns Hopkins University. He entered the Department of Agriculture as laboratory assistant in the Bureau of Plant Industry in 1921 and since that time has advanced through the various professional grades to his present position of Principal Chemist. Prior to his association with the Department of Agriculture he spent four years in analytical and metallurgical chemistry with several steel companies. While in the Department he has been engaged in various phases of biochemical research with particular reference to soils, soil organisms, and a considerable number of plants and plant products. The results of these researches have been published in a series of forty-five scientific and technical papers.

For the past two and a half years Dr. Markley has directed the work of the Oil Section of the United States Regional Soybean Industrial Products Laboratory at Urbana, Ill. He spent the summer of 1936 visiting various oil and protein laboratories and consulting with staff members of more than a dozen European universities and research institutions and recently has collaborated in the preparation of a series of monographs on the chemistry and technology of fats and oils. For the past two years he has served on the Fat Analysis Committees of the American Chemical Society and the American Oil Chemists' Society; Refining Loss Committee

of the American Oil Chemists' Society; Finished Materials Standards Committee of the Soybean Processor's Association; and the Editorial Advisory Board of the periodical, Oil and Soap.

Dr. Evald L. Skau has been appointed Senior Chemist in the Oil, Fat and Protein Division of the Southern laboratory. Dr. Skau's investigations will involve a fundamental study of various physical and chemical methods of separation of the fatty acids and glycerides of cottonseed and peanut oils, so that these compounds and derivatives thereof may be available commercially from this source.

Dr. Skau holds a Ph.D. degree in physico-organic chemistry from Yale University. He taught for a number of years at Trinity College in Hartford, Conn., and has also done considerable consulting work. For two years he was National Research Council fellow at the Research Laboratory of Physical Chemistry, Massachusetts Institute of Technology. He spent two years at various foreign universities and at the International Bureau of Standards in Brussels, one year as Guggenheim fellow. For the past two years he has been investigating the effect of ultraviolet light on sterols as International Cancer Research Foundation fellow, at Yale University. He has published numerous papers on the purification and physical properties of organic compounds in the various scientific journals.

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P. Burke Jacobs has been appointed Senior Chemical Engineer in the Agricultural Motor Fuels Division of the Northern laboratory. In his new position Mr. Jacobs will be responsible for that part of the work of the Division dealing with the production of industrial alcohol from agricultural materials grown or produced in the United States. This work will represent a pilot-plant development of the activities in which Mr. Jacobs has been engaged for the past three years.

H. T. Herrick is now traveling westward in connection with the work of the Regional Laboratories. En route he attended the cornerstone laying ceremonies for the Northern laboratory at Peoria on October 18, and the cornerstone ceremonies of the Western laboratory at Albany, Calif., on October 27. On November 3-4 he will attend the meeting of the State Farm Chemurgic Council at Seattle, Wash., and while in Seattle will participate in an interview of the Farm Forum hour over radio station KIRO. His work will take him as far north as Vancouver, B. C. He is expected to return to Washington on November 10. Dr. T. L. Swenson met Mr. Herrick in Chicago October 19 and will accompany him during the remainder of his trip.

Dr. O. E. May attended the cornerstone laying ceremonies for the Northern laboratory and visited the Regional Soybean Industrial Products Laboratory.

Dr. P. A. Wells and M. J. Goss attended the cornerstone ceremonies for the Eastern laboratory held at Wyndmoor, Pa., on October 20.



D.F.J. Lynch and R. J. Chestham will attend the meeting of the Cotton Textile Institute in New York on October 25.

Dr. K. S. Markley and Dr. E. L. Skau recently returned from the Middle West where they attended the meeting of the American Oil Chemists Society in Chicago and visited the Regional Soybean Industrial Products Laboratory.

Dr. I. C. Feustel is in New York serving as witness in a trial in the New York Customs Court relating to peat moss as a fertilizer. Upon his return Dr. Feustel will start on a trip to the West and South to make a survey of the principal processing wastes and develop a research program in connection with such wastes, with particular reference to composting.

Dr. Eugene H. Melvin has gone to Peoria, Ill., to report for duty at the Northern laboratory. He will return to Washington for further work relating to the Analytical and Physical Chemical Division.

Dr. R. D. Coghill is in the Middle West investigating fermentation processes and equipment in connection with the work to be undertaken in the Fermentation Division of the Northern laboratory. Dr. Joseph J. Stubbs, of the Industrial Farm Products Research Division, will accompany Dr. Coghill during a part of the time.

John J. Brown, Cotton Technologist in the Cotton Technology Division of the Southern laboratory, is now at Houston, Texas, investigating the paving of a large parking space by Sears, Roebuck and Co., in which 30,000 square yards of cotton fabric will be used. This is an interesting new development in the utilization of cotton.

R. E. Lothrop, Assistant to the Director of the Eastern laboratory, will attend the meeting of the Vermont Dairy Plants Operators and Managers Association in Burlington, Vt., October 25-26, and read a paper on the Eastern Regional Research Laboratory.

Dr. Lee T. Smith and Dr. R. W. Jackson will go to eastern points the latter part of October to confer with industrial and other interested groups with reference to the work that will be undertaken in the research programs on carbohydrates and proteins.

J. H. Shollenberger left on October 20 for an extensive trip to the West to confer with agricultural leaders, millers, cereal chemists and grain men relative to the lines of work to be undertaken in the regional laboratories, with special reference to discovering and developing new uses for wheat. He will return to Washington about December 1.

Dr. E. C. Lathrop will visit Middle Western points during the period October 17 to November 6, accompanied by Dr. S. I. Aronovsky of the Agricultural Byproducts Laboratory at Ames, Iowa, in an investigation of industrial processes in connection with the project on utilization of agricultural wastes.

## FOOD RESEARCH

R. S. Hollingshead, Acting in Charge of the Food Research Division, accompanied by Harry E. Goresline, recently visited the Geneva, N.Y. station of the Division as well as other points in New York State in connection with fruit juice investigations.

On October 6, Mr. Hollingshead met with members of the Glass Container Association in New York City, for the purpose of discussing research work to be carried on under the new fruit juice fellowship set up at the Los Angeles, Calif., station of the Food Research Division in cooperation with the Glass Container Association.

A visit was made to the Washington, D. C. office of the Food Research Division on October 5, by H. W. von Loesecke who is in charge of the U. S. Citrus Products Station at Winter Haven, Fla. He discussed the work of his station with Division and Bureau officials.

The Division recently cooperated in preparing specimens of agricultural products to be placed in the cornerstones of the Northern and Eastern Regional Research Laboratories, laid on October 18 and 20, respectively. Specimens of corn, wheat, and various types of coins were preserved in blocks of crystal-clear plastic by Dr. Sando for the Northern Laboratory at Peoria, Ill. Material prepared in a similar manner by Dr. Sando for the Eastern Laboratory at Wyndmoor, Pa., including two small bottles containing ursolic acid extracted from apples, and apple pomace, and another set of coins which were obtained fresh from the mint for this purpose. E. K. Nelson furnished samples of powdered apple pectin and desiccated vegetables for the Eastern Laboratory.

G. R. Fessenden utilized his patented methods of preserving plants in their natural state in preparing specimens for the Eastern Laboratory's cornerstone. These mounted specimens included a carrot plant, a leaf from tobacco, spinach and celery plants, and a leaf from the new variety of potato which has just been perfected at Beltsville was given U.S.D.A. No. 41956. He is also using this method for the preparation of specimens of the alfalfa plant (leaves and flowers) and hop leaves and cones in the green state to be placed in the cornerstone of the Western Regional Research Laboratory at Albany, Calif.



Changes in Personnel

Recent Appointments -- Indefinite or Probationary

Mrs. Margery C. Hoenack	Jr. Clerk-Stenographer	Chem. Engr. Res. Div.
Michael J. Copley	Principal Chemist (Wyndmoor, Pa.)	Reg. Res. Laboratories
Evald L. Skau	Sr. Chemist (New Orleans, La.)	" " "
Richard W. Jackson	Principal Chemist (Wyndmoor, Pa.)	" " "
Brooks A. Brice	Sr. Physicist (Wyndmoor, Pa.)	" " "
Jos. Edgar Hartley	Jr. Laborer (Stoneville, Miss.)	Cotton Ginning Invs.
Clyde S. Johnson	Under Scien. Helper (Lafayette, Ind.)	Ind. Farm Prods. Res.
Mrs. Margaret Busey Mabie	Jr. Clerk-Stenog. (Urbana, Ill.)	" " " "
Russell Elden Dickerson	Jr. Laborer (Urbana, Ill.)	" " " "
Ward Carter Suttle	Jr. Scien. Aide (" " )	" " " "
Mrs. Louise M. Heagy	Assistant Clerk	Business Admin.
Albert H. Korsin	Asst. Engr. Aide (Wyndmoor, Pa.)	Plans and Service
Katherine Eliz. Laas	Under Clerk-Typist (Hays, Kansas)	Div. of Structures
John William McKenzie	Laborer (Laurel, Miss.)	Carbohydrate Res. Div.
John Bryson Greiner	Agent (CC) (Athens, Ga.)	Rural Elec. Res. Div.

Recent Appointments - Temporary

Julius F. Byrd	Cotton Ginning Spec. (Stoneville, Miss.)	Cotton Ginning Inves.
Mrs. Ruth Gregg Condon	Jr. Clerk-Typist	Business Admin.
Arthur Henry Seibert	Jr. Sugar Technol. (Baton Rouge, La.)	Carbohydrate Res. Div.
Elinor Irene Jeffries	Jr. Clerk-Stenographer	Reg. Res. Laboratories
Mary Lindsey	Jr. Clerk-Typist	" " "
Olive Taylor O'Reilly	Jr. Clerk-Typist	" " "
Lou V. Brennan	Jr. Clerk-Typist	" " "

Separations

Jack H. Mitchell, Jr.	Under Scientific Helper	Ind. Farm Prods. Res.
Scott Anderson	" " " (Urbana, Ill.)	" " " "
Mary P. Sunderland	Jr. Clerk-Typist (Urbana, Ill.) (Resigned)	" " " "
Gaylon C. Williamson	Jr. Laborer (Urbana, Ill.)	" " " "
Frank H. Malice	Asst. Civil Engineer	Plans and Service
Howard H. Kester	Asst. Mech. Engr.	" " "
Alden Harline	Under Scien. Helper (Logan, Utah)	Food Research Div.

Separations (Continued)

Margaret V. Thomas	Jr. Clerk-Stenog. (Weslaco, Tex.) (Resigned)	Food Research Div.
W. Edwards Deming	Physicist (Trans. to Agr. Mark. Serv.)	Fertilizer Res. Div.
John L. Catlett	Jr. Sugar Technol. (Meridian, Miss.)	Carbohydrate Res. Div.
Mrs. Josephine Mary Thompson	Jr. Stenographer	Div. of Structures
Barbara Jean Wilson	Stenographer (Urbana, Ill.)	" " "
Mrs. Mary L. Ryan	Jr. Clerk-Typist	" " "
Frank T. Teel	Topographic Draftsman (Resigned)	Information Div.
John P. Hewlett, Jr.	Under Scien. Helper (Transferred to Bur. Ent. & Plant Quarantine)	Allergen Investi- gations.

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